

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method of manufacturing a carbon nanotube semiconductor device, comprising:
 - dropping a solution containing a carbon nanotube with conductor property and a carbon nanotube with semiconductor property onto a first electrode, a second electrode, and a region between the first electrode and the second electrode and overlapped with ~~[[the]]~~ a third electrode through an insulating film while an alternating current voltage is applied between the first electrode and the second electrode which are located over the insulating film over ~~[[a]]~~ the third electrode;
 - controlling the carbon nanotubes in a predetermined alignment direction; and
 - applying a direct current voltage between the first electrode and the second electrode to remove the carbon nanotube with conductor property,
 - wherein the first electrode is connected with the second electrode through the carbon nanotube with semiconductor property in the carbon nanotube semiconductor device.
2. (Original) A method of manufacturing a carbon nanotube semiconductor device according to claim 1, further comprising rubbing a surface of the first electrode, a surface of the second electrode, and a surface of the insulating film between the first electrode and the second electrode overlapped with the third electrode.
3. (Original) A method of manufacturing a carbon nanotube semiconductor device according to claim 1, further comprising:
 - forming an alignment film over the first electrode, the second electrode, and the insulating film between the first electrode and the second electrode; and
 - rubbing a surface of the alignment film.
- 4-5. (Cancelled)

6. (Previously Presented) A method of manufacturing a carbon nanotube semiconductor device according to claim 1, wherein a frequency of the alternating current voltage is equal to or larger than 1 MHz.

7. (Cancelled)

8. (Previously Presented) A method of manufacturing a carbon nanotube semiconductor device according to claim 1, wherein a concentration of carbon nanotubes contained in the carbon nanotube solution is equal to or lower than 0.0005%.

9. (Cancelled)

10. (Previously Presented) A method of manufacturing a carbon nanotube semiconductor device, comprising:

forming a gate electrode over a substrate;

forming a gate insulating film over the gate electrode and the substrate;

forming a source electrode and a drain electrode over the gate insulating film;

applying a carbon nanotube solution comprising a solvent, a carbon nanotube with conductor property and a carbon nanotube with semiconductor property over the source electrode, the drain electrode and a region of the gate insulating film between the source electrode and the drain electrode and overlapped with the gate electrode;

applying an alternating current voltage between the source electrode and the drain electrode in order to control an alignment direction of the carbon nanotube;

evaporating the solvent for forming a carbon nanotube layer connecting the source electrode and the drain electrode; and

applying a direct current voltage between the source electrode and the drain electrode in order to remove the carbon nanotube with conductor property.

11. (Original) A method of manufacturing a carbon nanotube semiconductor device according to claim 10, further comprising:

forming an alignment film so as to cover the source electrode, the drain electrode, and the gate insulating film between the source electrode and the drain electrode; and rubbing a surface of the alignment film.

12-13. (Cancelled)

14. (Previously Presented) A method of manufacturing a carbon nanotube semiconductor device according to claim 10, wherein a frequency of the alternating current voltage is equal to or larger than 1 MHz.

15. (Cancelled)

16. (Previously Presented) A method of manufacturing a carbon nanotube semiconductor device according to claim 10, wherein a concentration of the carbon nanotube contained in the carbon nanotube solution is equal to or lower than 0.0005%.

17. (Cancelled)

18. (Previously Presented) A method of manufacturing a carbon nanotube semiconductor device, comprising:

providing a first electrode and a second electrode over substrate;

applying a solution containing carbon nanotubes with conductor property and carbon nanotubes with semiconductor property over the first and second electrodes and a region of a surface of the substrate between the first and second electrodes;

controlling the carbon nanotubes in a predetermined alignment direction; and

applying a direct current voltage between the first and second electrodes, thereby removing the carbon nanotubes with conductor property,

wherein a third electrode is located adjacent to and overlapped with the carbon nanotubes with semiconductor property connecting the first and second electrodes with an insulating film therebetween.